

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (**Currently Amended**). A polarizer device of Glan-Thompson type comprising first and second prisms made of a birefringent material having certain dispersion ~~profiles, $n_o(\lambda)$ and $n_e(\lambda)$~~ profiles $n_o(\lambda)$ and $n_e(\lambda)$ for, respectively, ordinary and extraordinary polarization axis and being coupled to each other by a binding material layer, wherein said binding material has a dispersion profile, ~~$n_g(\lambda)$~~ $n_g(\lambda)$, matching said dispersion ~~profiles, $n_o(\lambda)$ and $n_e(\lambda)$~~ profiles $n_o(\lambda)$ and $n_e(\lambda)$ so as to provide an effect of total internal reflection within a spectral range including short wavelength of ~~about 190 nm~~ about 190 nm.

2 (**Currently Amended**). The device of claim 1, wherein said prisms are made of ~~A-BBO~~ α -BBO crystals.

3 (**Currently Amended**). The device of claim 1, wherein said first and second prisms have a cut ~~angle of about 31°~~ angle θ' of about 31°.

4 (**Previously Presented**). The device of claim 1, wherein said binding material is RTV silicone.

5 (**Previously Presented**). The device of claim 1, wherein said binding material is a two-part material.

6 (**Previously Presented**). The device of claim 1, wherein said binding material has controlled volatility.

7 (**Previously Presented**). The device of claim 1, wherein said binding material has low viscosity.

8 (**Previously Presented**). The device of claim 1, wherein said binding material is CV15-2500 optical glue, commercially available from NuSil Technology, USA.

9 (**Previously Presented**). The device of claim 1, wherein said binding material layer has a thickness of a few microns.

10 (**Previously Presented**). The device of claim 1, wherein said binding material layer includes a mixture of an optical glue material with small beads of solid transparent material.

11 (**Currently Amended**). The device of claim 10, wherein said beads are uniformly distributed within the glue material with a surface area concentration of the beads substantially not exceeding ~~10^{-4}cm^{-2}~~ 10^{-6}cm^{-2} .

12 (**Previously Presented**). The device of claim 1, wherein each of the prisms' facets defining side facets of the device for inputting and outputting light has a circular geometry.

13 (**Currently Amended**). The device of claim 1, wherein each of the ~~prisms' facets~~ prisms' facets defining side facets of the device for inputting and outputting light is a polygon of more than four angles.

14 (**Currently Amended**). The device of claim 1, wherein each of the ~~prisms' facets~~ prisms' facets defining side facets of the device for inputting and outputting light is an eight-angle polygon.

15 (**Currently Amended**). A polarizer device of Glan-Thompson type comprising first and second prisms made of a birefringent material having certain dispersion profiles ~~$n_o(\lambda)$ and $n_e(\lambda)$~~ $n_o(\lambda)$ and $n_e(\lambda)$ for, respectively, ordinary and extraordinary polarization axis and being coupled to each other by a binding material layer including a mixture of a binding material and small beads of a solid transparent material, wherein said binding material has a dispersion profile, ~~$n_g(\lambda)$~~ $n_g(\lambda)$, matching said dispersion profiles ~~$n_o(\lambda)$ and $n_e(\lambda)$~~ $n_o(\lambda)$ and $n_e(\lambda)$

$n_o(\lambda)$ so as to provide an effect of total internal reflection within a spectral range including short wavelength of about 190nm.

16 (**Currently Amended**). A polarizer device of Glan-Thompson type comprising first and second prisms made of a birefringent material having certain dispersion profiles ~~$n_e(X)$~~ $n_o(\lambda)$ and ~~$n_e(X)-n_o(\lambda)$~~ for, respectively, ordinary and extraordinary polarization axis and being coupled to each other by a binding material layer including a mixture of a binding material and small beads of a solid transparent material, wherein said binding material has a dispersion profile, ~~$n_g(X)$~~ , $n_g(\lambda)$, matching said dispersion ~~profiles $n_o(7)$ and $n_e(k)$~~ profiles $n_o(\lambda)$ and $n_e(\lambda)$ so as to provide an effect of total internal reflection within a spectral range including short wavelength of ~~about 190nm~~ about 190nm and wherein the beads being substantially uniformly distributed within the binding material layer with a surface area concentration, ~~$C_{rr}-C_g$~~ , substantially not ~~exceeding~~ $0-6\text{cm}^{-2}$ exceeding 10^{-6}cm^{-2} .

17 (**Currently Amended**). A polarizer device comprising first and second prisms coupled to each other by their tilted surfaces; and a binding material layer between said tilted

surfaces of the prisms, said layer including a mixture of a binding transparent material and small beads of a solid transparent material, the binding material layer thereby having a substantially uniform thickness of ~~about 5-10 microns~~. about 5-10 microns. ~~A polarizer device having opposite side facets serving for, respectively, inputting and outputting light, wherein each of said side facets is either a circle or a polygon of more than four angles.~~

18 (**Currently Amended**). A method of manufacturing a polarizer device of Glan-Thompson type comprising providing first and second prisms made of a selected birefringent material having certain dispersion ~~profiles~~, ~~(X)~~ profiles $n_o(\lambda)$ and $n_e(\lambda)$ for, respectively ordinary and extraordinary polarization axis, selecting a binding material having a dispersion ~~profile, $n_g(\lambda)$~~ profile, $n_g(\lambda)$, matching said dispersion ~~profiles~~ ~~(7)~~ profiles $n_o(\lambda)$ and $n_e(\lambda)$ so as to provide an effect of total internal reflection within a spectral range including short wavelength of about 190nm and attaching the tilted surfaces of the prisms to each other by a layer of said binding material.

19 **(Original)**. A method of manufacturing a polarizer device of Glan-Thompson type comprising providing first and second prisms coupled to each other at their tilted surfaces by a binding material layer, which includes a mixture of a binding transparent material and small beads of a solid transparent material, the binding material layer thereby having a substantially uniform thickness of about 5-10 microns.

20 **(Original)**. A method of manufacturing a polarizer device of Glan-Thompson type comprising providing first and second prisms coupled to each other at their tilted surfaces by a binding material layer, which includes a mixture of a binding transparent material and small beads of a solid transparent material, the binding material layer thereby having a substantially uniform thickness of about 5-10 microns.

21 **(Currently Amended)**. The method for manufacturing a polarizer device of ~~Glan-Thompson type of any of the preceding~~
~~method Claims claim 18~~ comprising configuring opposite side facets serving for, respectively, inputting and outputting light, to be either a circle or a polygon of more than four angles, thereby minimizing a footprint of the polarizer device.

In re Appln of WINIK et al
Application No. 10/591,651
Reply to Office Communication of August 5, 2010
Reply dated August 10, 2010

22 (**New**). A polarizer device having opposite side facets serving for, respectively, inputting and outputting light, wherein each of said side facets is either a circle or a polygon of more than four angles.